

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date
2 June 2005 (02.06.2005)

PCT

(10) International Publication Number
WO 2005/049908 A2

(51) International Patent Classification⁷:

D06B

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/IN2004/000318

(22) International Filing Date: 12 October 2004 (12.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1117/MUM/2003 21 October 2003 (21.10.2003) IN

(71) Applicant (for all designated States except US): THE ARVIND MILLS LTD. [IN/IN]; Naroda Road, Ahmedabad 380 025, Gujarat (IN).

(72) Inventor; and

(75) Inventor/Applicant (for US only): AGNIHOTRI, Kishor, Gajanan [IN/IN]; "Prerana", Prerana Park, Near L.G. Hospital, Maninagar, Ahmedabad 380 008, Gujarat (IN).

(74) Agents: SAURASTRI, Manish et al.; Krishna & Saurastri, 74/F Venus, Worli Sea Face, Mumbai 400 018, Maharashtra (IN).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

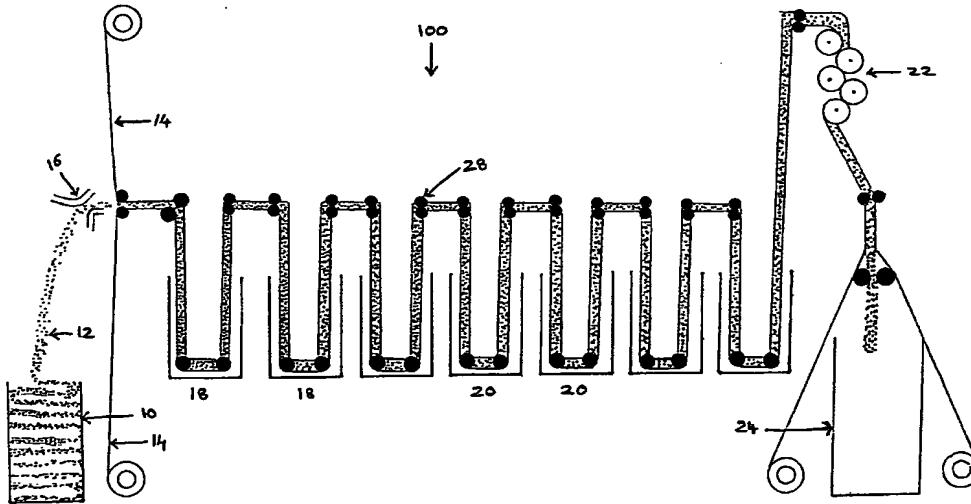
— of inventorship (Rule 4.17(iv)) for US only

Published:

— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: A METHOD AND APPARATUS FOR DYEING FIBERS



WO 2005/049908 A2

(57) Abstract: The present invention relates to a method and an apparatus for dyeing cotton at fiber stage and a method for preparing yarn. The present invention provides an apparatus for dyeing fibers and filaments comprising plurality of pre-wetting troughs, plurality of dye baths, and a drying arrangement characterized in having a supporting system for carrying and dyeing the fiber continuously and homogeneously. The fibers or filaments for dyeing includes cotton and other natural fibers, man made and synthetic fibers as well as filaments and a combination thereof. The fiber for dyeing according to the present invention is cotton fiber. A method for dyeing according to the present invention comprising the steps of carrying the cotton fiber along with supporting system; prewetting the cotton fiber along with supporting system; dyeing of cotton fiber along with the supporting system; and drying of the cotton fiber wherein the cotton fiber is dyed continuously and homogeneously. The dye used for dyeing is the indigo dye.

WO 2005/049908 A2



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.